

## **REMARKS**

Claims 1 – 26 are pending in the application.

### **Claim Rejections – 35 USC § 112**

Claims 22-23 were rejected by the Examiner under 35 U.S.C. 112.

The Examiner argued that the limitation "the graph" in these claims lacks a sufficient antecedent basis in each of these claims. Appropriate antecedent basis has been added by amendment of preceding claims.

Favorable reconsideration of this rejection in view of the above amendments is respectfully requested.

### **Claim Rejections – 35 USC § 103**

Claims 1-12, 17-21, and 24-26 were rejected under 35 USC 103(a) as being unpatentable over Shandony (US patent no. 6,675,261).

Favorable reconsideration of this rejection in view of the above amendments and the following explanations is respectfully requested.

Shandony (US patent no. 6,675,261), as described in the background of the invention section, deals with the problem of slowed processing due to repeated accessing of the same data store entries, by teaching request base caching on a

server. Shandony describes an example wherein this request base catching is implemented in an identity system, as described in column 1, line 46: "For example, a request may cause the identity system to load data into a data store entry and later retrieve the newly loaded data multiple times for performing different functions". Shandony describes an exemplary identity system implementation of his teachings. This identity system provides entities to create, delete, and manage groups of users who need identical access privileges to specific resource or set of resources (Column 7, line 63).

The present invention, as described in the field of invention section, relates to a method and apparatus for automatic elicitation and specification of role grouping by shared resource utilization and more particularly but not exclusively to grouping of users into roles according to their access rights to shared resources, typically but again not exclusively over a network. The apparatus for role grouping disclosed by the present invention, utilizes *pattern recognition*, applied to existing information relating to a user population and its access levels and utilization levels of resources, so as to automatically discover relationship patterns amongst nodes, as required by claim 1, which is discussed in greater detail below.

Shandony never suggests or even hints at such a *pattern recognition* utilizing apparatus. In fact, as described above, Shandony only teaches an apparatus for avoiding repetitive retrieval of data entries from a data store, and illustrates his apparatus implementation using an identity system example, wherein users and

resources relationships can be presented and maintained by delegated administrators (column 7, lines 30-50).

**Claim 1** defines a pattern recognition apparatus for grouping nodes according to relationships with other nodes, the apparatus comprising: an input for receiving an arrangement of nodes, the arrangement comprising at least two partitions of the nodes, and with predetermined relationships between nodes across the partitions, and a pattern recognition unit associated with the input, for using *pattern recognition* on the nodes and the relationships to find relationship patterns amongst the nodes, thereby to form at least one group from nodes of a first of the partitions, wherein the nodes being formed into the group share in the input relationships with same ones of a predetermined number of nodes in a second partition.

As described above, Shandony never suggests or even hints at such a *pattern recognition* utilizing apparatus, for *finding relationship patterns* amongst nodes as defined by claim 1. Rather Shandony discloses an Identity System having a Group Manager, which provides for self-registration of users to groups, and which lets companies form dynamic groups specified by a LDAP filter, which is used to filter users according to their computer system directory stored attributes. With Shandony, it is possible to create groups by manually associating users and resources, or implicitly by assigning existing rules to users. However, in large organizations this is usually a very difficult and non-trivial task. The present application provides organizations with an apparatus and method to analyze the

existing privileges structure in order to automatically determine the groupings that best reflect their business practices. Thus, the apparatus and method described in the present application can be used to automate formation of the groupings that would later be provided to a system like the one taught by Shandony.

Thus, it is respectfully believed that claim 1 is not obvious and should be allowed.

Claims 25 and 26 were rejected by the Examiner as being the method and the product claims of claim 1, respectively, and are respectfully believed to be allowable as claim 1 is believed to be.

The remaining claims mentioned in this section of the Office Action are believed to be allowable as being dependent on an allowable main claim.

No new matter is added by the present amendments.

All of the matters raised by the Examiner have been dealt with and are believed to have been overcome. In view of the foregoing, it is respectfully submitted that all the claims now pending in the application are allowable.

An early Notice of Allowance is therefore respectfully requested.

Respectfully submitted,



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